

Proposed GE Track—*Submitted By Professor Sarah Beckman*

Track Title & Description:

Ancient Technologies

This track introduces students to ancient civilizations across the globe, and strengthens their familiarity with technological innovations in the distant past, from architecture to agriculture, from city planning to civic engineering. Courses are drawn from a wide range of departments so as to familiarize students with the true diversity of ancient cultures and peoples that have shaped our modern world. Through comparative methods of analysis, students develop an understanding of the history of machines and materials in a world before automation, as well as the multifarious nature of human settlement, cultivation, and urbanism. Some courses – e.g. the new Greco-Roman Technologies – directly emphasize ancient engineering and human labor, while others survey architectural contributions broadly, e.g. History of Architecture and Urban Planning I; Art and Architecture of the Ancient Americas. Still others provide more basic background to early human settlement, urbanization, and collective expansion (First Civilizations; Plants and Civilization). Others privilege training in materials science and/or archaeological methodologies: Materials Structure and Technologies in Archaeology and Architecture.

ANCIENT NEAR EAST

M50A First Civilizations

M E STD M50A

5 units

Literacy & Cultural Analysis (Arts & Humanities)

Historical Analysis (Society & Culture)

Description

(Same as Ancient Near East M50A.) Lecture, three hours; discussion, one hour. Survey of great civilizations of ancient Near East—Egypt, Israel, and Mesopotamia—with attention to emergence of writing, monotheism, and urban societies. Letter grading.

15W Women and Power in Ancient World

AN N EA 15W

5 units

Historical Analysis (Society & Culture)

Description

Lecture, four hours; discussion, one hour. Requisite: English Composition 3. Not open for credit to students with credit for course 15. Examination of how feminine power confronts masculine dominance within complex social systems in ancient world. To gain political power, some female rulers used their sexuality to gain access to important men. Other women gained their position as regents and helpers of masculine kings who were too young to rule. Others denied their femininity in dress and manner, effectively androgynizing themselves or pretending to be men so that their femininity would not be obstacle to political rule. Many women only gained throne at end of dynasties after male line had run out entirely, or in midst of civil war when patrilineal successions were in disarray. No women were able to gain reigns of power through their bloodlines alone.

Women's power was compromised from outset. Examination of root causes and results of this political inequality. Satisfies Writing II requirement. P/NP or letter grading.

AMERICAN INDIAN STUDIES

M10 Introduction to American Indian Studies

AM IND M10

5 units

Social Analysis (Society & Culture)

Description

(Same as World Arts and Cultures M23.) Lecture, three hours; discussion, one hour; activity, one hour. Survey of selected Native North American cultures from pre-Western contact to contemporary period, with particular emphasis on early cultural diversity and diverse patterns of political, linguistic, social, legal, and cultural change in postcontact period. P/NP or letter grading.

ANTHROPOLOGY

1 Human Evolution

ANTHRO 1

5 units

Life Sciences without Lab Credit (Scientific Inquiry)

Description

Lecture, three hours; discussion, one hour. Required as preparation for both bachelor's degrees. Evolutionary processes and evolutionary past of human species. P/NP or letter grading.

ARCHAEOLOGY

2 Archaeology: An Introduction

ATHRO 2

5 units

Historical Analysis (Society & Culture)

Social Analysis (Society & Culture)

Description

Lecture, three hours; discussion, one hour; one field trip. Required as preparation for both bachelor's degrees. General survey of field and laboratory methods, theory, and major findings of anthropological archaeology, including case-study guest lectures presented by several campus archaeologists. P/NP or letter grading.

30 Science in Archaeology

ARCHEOL 30

4 units

Life Sciences without Lab Credit (Scientific Inquiry)

Physical Sciences without Lab Credit (Scientific Inquiry)

Description

Lecture, three hours; discussion, one hour. Archaeology is rapidly developing due to ongoing introduction of new hardware, software, and information dissemination technology. It is multidisciplinary field of study, combining its own research methods and technologies with elements from geology, history, ethnography, geography, material science, statistics, biology, biochemistry, medicine, and others, presenting opportunities not only to obtain new scholarly insights, but also to provide integrated instruction in science, technology, engineering, and mathematics (STEM) skills. Use of archaeological data as paradigm in STEM education. Instant practical application of mathematics during surveying, geology during ceramic analysis or geophysical research, biochemistry during archaeological residue analysis, or biology during zooarchaeological or paleoethnobotanical research offers point of departure for instructors as well as motivation to students. P/NP or letter grading.

ARCHITECTURE AND URBAN DESIGN

10A Histories of Architecture and Urbanism I

ARCH&UD 10A

5 units

Historical Analysis (Society & Culture)

Description

Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of developments in global architecture and urban design from prehistory to 1600 and critical reflection on terms such as building, architecture, city, history, and culture. Focus on world context, construction and technology, and history of architectural ideas. P/NP or letter grading.

ART HISTORY

20 Ancient Art

ART HIS 20

5 units

Historical Analysis (Society & Culture)

Literacy & Cultural Analysis (Arts & Humanities)

Visual & Performance Arts Analysis & Practice (Arts & Humanities)

Description

Lecture, three hours; quiz, one hour; museum field trips. Prehistoric, Egyptian, Mesopotamian, Aegean, Greek, Hellenistic, and Roman art and architecture. P/NP or letter grading.

27 Art and Architecture of the Ancient Americas

ART HIS 27

5 units

Beckmann (Classics) – Application for a Teagle Foundation Grant (2023-24)

Literacy & Cultural Analysis (Arts & Humanities)

Visual & Performance Arts Analysis & Practice (Arts & Humanities)

Description

Lecture, three hours; discussion, one hour; museum field trips. Introduction to art, architecture, and urbanism of Americas (North to South) from earliest settlement until AD 1450. Analysis of variety of media within their historical and cultural context. P/NP or letter grading.

28 Arts of Africa

ART HIS 28

5 units

Historical Analysis (Society & Culture)

Social Analysis (Society & Culture)

Description

Visual & Performance Arts Analysis & Practice (Arts & Humanities)

Lecture, three hours; discussion, one hour; museum field trips. Introduction to arts and architecture of Africa. Examination of social and historical contexts of their production. Introduction to body of information within framework of conceptual problem through series of case studies. P/NP or letter grading.

29 Chinese Art

ART HIS 29

5 units

Diversity — Arts and Architecture

Literacy & Cultural Analysis (Arts & Humanities)

Visual & Performance Arts Analysis & Practice (Arts & Humanities)

Description

Lecture, three hours; discussion, one hour; museum field trips. General introduction to Chinese art, covering all major periods from Neolithic to modern age. Presentation of monuments as well as artifacts in variety of media in their social and historical contexts. P/NP or letter grading.

30 Arts of Japan

ART HIS 30

5 units

Historical Analysis (Society & Culture)

Visual & Performance Arts Analysis & Practice (Arts & Humanities)

Description

Lecture, three hours; discussion, one hour; museum field trips. General introduction to art, architecture, and material culture of Japan, from earliest records to present. P/NP or letter grading.

31 Art of India and Southeast Asia

ART HIS 31

5 units

Literacy and Cultural Analysis (Arts and Humanities)

Visual & Performance Arts Analysis & Practice (Arts & Humanities)

Description

Lecture, three hours; discussion, one hour; museum field trips. Discussion of selection of monuments and objects from Indian subcontinent and Southeast Asia using key historical, cultural, and religious concepts. Analysis of each monument or object in detail, with their relationships compared and contrasted. P/NP or letter grading.

ASIAN

M20 Visible Language: Study of Writing

ASIAN M20

5 units

Philosophical & Linguistic Analysis (Arts & Humanities)

Description

(Same as Indo-European Studies M20, Near Eastern Languages M20, Slavic M20, and Southeast Asian M20.) Lecture, three hours; discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium BC. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of corresponding earliest developments, their antiquity and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semiotic language representation. Origins and development of early non-Western writing systems. How Greco-Roman alphabet arose in 1st millennium BC and how it compares to other modern writing systems. P/NP or letter grading.

CHINESE

50 Chinese Civilization

CHIN 50

5 units

Historical Analysis (Society & Culture)

Literacy & Cultural Analysis (Arts & Humanities)

Philosophical & Linguistic Analysis (Arts & Humanities)

Description

Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50W. Knowledge of Chinese not required. Introduction to most important aspects of Chinese culture. Topics include early Chinese civilization, historical development of Chinese society, issues of ethnicity, Chinese language and philosophy, and early scientific and technological innovation. P/NP or letter grading.

ECOLOGY AND EVOLUTIONARY BIOLOGY

10 Plants and Civilization

EE BIOL 10

4 units

Life Sciences without Lab Credit (Scientific Inquiry)

Description

Lecture, three hours; demonstration, one hour. Designed for nonmajors. Origin of crop plants; man's role in development, distribution, and modification of food, fiber, medicinal, and other plants in relation to their natural history. P/NP or letter grading.

HISTORY

8A Colonial Latin America

HIST 8A

5 units

Historical Analysis (Society & Culture)

Literacy & Cultural Analysis (Arts & Humanities)

Description

Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 8AH. General introduction to Latin American history from contact period to independence (1490s to 1820s), with emphasis on convergence of Native American, European, and African cultures in Latin America; issues of ethnicity and gender; development of colonial institutions and societies; and emergence of local and national identities. Readings focus on writings of Latin American men and women from the period studied. P/NP or letter grading.

9A Introduction to Asian Civilizations: India

HIST 9A

5 units

Historical Analysis (Society & Culture)

Literacy & Cultural Analysis (Arts & Humanities)

Description

Lecture, three hours; discussion, two hours. Introductory survey for beginning students of major cultural, social, and political ideas, traditions, and institutions of Indic civilization. P/NP or letter grading.

MATERIALS SCIENCE AND ENGINEERING

33W Materials Structure and Technologies in Archaeology and Architecture

MAT SCI 33W

5 units

Physical Sciences without Lab Credit (Scientific Inquiry)

Description

(Formerly numbered 33.) Seminar, three hours; laboratory, two hours; discussion, one hour; outside study, nine hours. Requisite: English Composition 3. Exploration of three classes of materials and composites, and relationships that exist between structural

Beckmann (Classics) – Application for a Teagle Foundation Grant (2023-24)

elements of materials and their properties: vitreous materials, building material binders, and pigments and colorants. Through study of ancient materials and technology in archaeology and architecture, exploration of relationships among processing, structure, properties, and performance for: vitreous materials—ceramics, frits, and glass; building material binders—airial lime-based mortars, natural and artificial hydraulic lime/cements and concretes; and pigments and colorants (natural and synthetic organic, inorganic, and organic/inorganic hybrids). Through reverse engineering processing, exploration of ancient engineering materials (their micro/nano structure and physical, chemical, and mechanical properties), and their durability and sustainability as time-proven examples of technology innovation and/or invention. Letter grading.